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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,171	06/27/2001	Darrell A. Poirier	006-110-400	4552

20433 7590 11/05/2004

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EXAMINER	
NOLAN, DANIEL A	
ART UNIT	**PAPER NUMBER**
2654	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,171	POIRIER, DARRELL A.	
	Examiner	Art Unit	
	Daniel A. Nolan	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Amendment

2. The filing of 07/26/2004 was applied to the following effect:

- The title was changed as indicated and the objection is withdrawn as satisfied.
- The abstract was changed and the objection is withdrawn as satisfied.
- The specification was changed as indicated and the corresponding objections addressed were withdrawn, leaving others extant.
- Claims 1-6 and 7-21 are cancelled and withdrawn, respectively, and the objections and rejections are withdrawn as moot.
- Claims 22-24 are added and the claims are examined on the merit.

Specification

3. The disclosure is objected to because of the following informalities:

- The word "*captures*" should be removed (from ¶[0031] – the 1st line page 9).
- The spelling of "microcomputer" should be consistent in the disclosure – i.e., ¶[0022] line 2 & ¶[0024] line 3.

Appropriate correction is required.

Claim Objections

4. Claims 22-24 are objected to because of the following informalities:

- The spelling of "microcomputer" should be consistent in the disclosure – see claim 22 lines 1 & 2.
- In claim 22, a comma is needed before the word "and" in the 4th line of section "f)".
- In claim 23, the comma should be removed from the 4th line of section "f)".
- In claim 23, a comma is needed before the word "and" in the 6th line of section "f)".
- In claim 24, a comma is needed before the word "and" in the 6th line of section "d)".
- In claim 24, introduction in section "c)" of a second microcomputer requires the word "second" or "said" appear before "microcomputer" in that section "c)" lines 4, 7 & 10.
- With regard to section "f)" of the claims, indenting the wording to reflect the structure will prevent errors of misunderstanding in the future, as in the following suggestion:

22. A Microcomputer enclosed in a 5½" enclosure that mounts into a standard personal computer 5½" storage peripheral bay,
said Microcomputer being adapted to capture the spoken words of a user and store the sounds and text of the spoken words of the user in a log memory to create a dual sound-textual transcript of the spoken words, the Microcomputer comprising:
a) an input device by which the spoken words of the user are converted to an electrical voice signal that represents the sound of the users spoken words and by which the voice signal is input into the Microcomputer,
b) a segmentor that divides the voice signal into segments,
c) a time stamper that electronically stamps each segment with the time that the segment was input into the Microcomputer,
d) a text converter that converts each segment into a text segment representative of the words spoken by the user in that segment,
e) a transfer means adapted to deliver the time stamped voice and text segments to the log memory,
f) an operating system adapted to operate the log memory so that the voice segment and the text segment can be compared,
and the operating system is adapted so that the voice segments can be recovered in chronological order and can be presented as a recording of the spoken words of the user

and the operating system is adapted so that the text segments can be recovered in chronological order and presented as a transcript of the spoken words of the user,

and the operating system is adapted so that the segments can be located in the log memory by time stamp.

23. A Microcomputer enclosed in a 5½" enclosure that mounts into a standard personal computer 5½" storage peripheral bay,
said Microcomputer being adapted to capture the spoken words of a 1st user and store the sounds and text of the spoken words of the 1st user in a log memory with the sounds and spoken words of a 2nd user to create a dual sound-textual transcript of the spoken words of the 1st user or the 2nd user or both the 1st user and the 2nd user,
the Microcomputer comprising:

a) an input device by which the spoken words of the 1st user are converted to an electrical voice signal that represents the sound of the user's spoken words and by which the voice signal is input into the Microcomputer,

b) a segmentor that divides the voice signal of the 1st user into segments,

c) a time stamper that electronically stamps each segment with the time that the segment was input into the Microcomputer,

d) a text converter that converts each segment into a text segment representative of the words spoken by the 1st user in that segment,

e) a transfer means adapted to deliver the time stamped voice and text segments of the 1st user to the log memory,

f) an operating system adapted to operate the log memory so that the voice segment and the text segment can be compared,

and the operating system is adapted so that the voice segments of the 1st user or of the 2nd user or of a combination of the 1st user and the 2nd user, can be recovered in chronological order and can be presented as a recording of the spoken words of the 1st user or the 2nd user or the 1st and 2nd user

and the operating system is adapted so that the text segments can be recovered in chronological order and presented as a transcript of the spoken words of the 1st user or of the 2nd user or of a combination of the 1st and 2nd user,

and the operating system is adapted so that the segments can be located in the log memory by time stamp.

24. A transcribing system for creating a transcript of a conversation between a 1st user and a 2nd user, comprising

a) a common log memory;

b) a 1st Microcomputer adapted to capture the spoken words of the 1st user and store the sounds and text of the spoken words of the 1st user in a log memory, the Microcomputer comprising:

i) an input device by which the spoken words of the 1st user are converted to an electrical voice signal that represents the sound of the 1st users spoken words and by which the voice signal is input into the Microcomputer,

ii) a segmentor that divides the voice signal into segments,

iii) a time stamper that electronically stamps each segment with the time that the segment was input into the Microcomputer,

iv) a text converter that converts each segment into a text segment representative of the words spoken by the 1st user in that segment,

v) a transfer means adapted to deliver the time stamped voice and text segments to the log memory,

c) a 2nd Microcomputer adapted to capture the spoken words of the 2nd user and store the sounds and text of the spoken words of the 2nd user in the log memory to create a dual sound-textual transcript of the spoken words of the 1st and 2nd users, the 2nd Microcomputer comprising:

i) an input device by which the spoken words of the 2nd user are converted to an electrical voice signal that represents the sound of the 2nd user's spoken words and by which the voice signal is input into the 2nd Microcomputer,

ii) a segmentor that divides the voice signal into segments,

iii) a time stamper that electronically stamps each segment with the time that the segment was input into the 2nd Microcomputer,

iv) a text converter that converts each segment into a text segment representative of the words spoken by the 2nd user in that segment,

v) a transfer means adapted to deliver the time stamped voice and text segments to the log memory, and

d) an operating system adapted to operate the log memory so that each voice segment and corresponding text segment can be compared,

and the operating system is adapted so that the voice segments of the 1st user or of the 2nd user, or of a combination of the 1st and 2nd user can be recovered in chronological order and can be presented as a recording of the spoken words of the 1st user or of the 2nd user or of a combination of the 1st and 2nd user,

and the operating system is adapted so that the text segments of the 1st user or of the 2nd users, or of a combination of the 1st and 2nd user can be recovered in chronological order and presented as a transcript of the spoken words of the 1st user or of the 2nd user or of a combination of the 1st and 2nd user,

and the operating system is adapted so that the segments can be located in the log memory by time stamp.

– See MPEP ¶ 6.02 which read in part:

(i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

Frank, Jr. *et al*'499, Chen *et al* & Chandler *et al*

5. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank, Jr. *et al*'499 (U.S. Patent 6,389,499 B1) in view of Chen *et al* (European Patent 952737 A2) and further in view of Chandler *et al* (U.S. Patent 6,477,491 B1).

6. Regarding claim 22 as understood by the Examiner, Frank, Jr. *et al*'499, with the invention for an *integrated computer module*, read on the features of the claim for *A Microcomputer enclosed in a 5½" enclosure that mounts into a standard personal computer 5½" storage peripheral bay* with the disclosure of *a Microcomputer* (column 1 lines 6-10) *that is enclosed in a 5¼" enclosure* (110 in figure 2 – see column 4 lines 24-25) *that mounts into a standard personal computer 5¼" storage peripheral bay* (425 & 420 respectively in figure 21 – see column 4 lines 20-22).

Frank, Jr. *et al*'499 read on the feature of *an operating system* (column 3 lines 3-8) but do not speak to *voice recognition software.*

Chen *et al*, with the invention for *identifying and selecting portions of information streams for television*, read on the feature of *said Microcomputer being adapted to capture the spoken words of a user* (with "speech recognition software" in the 10th line of section (57) in the 1st page) as well as reading on the feature *where this system is used for collection of spoken words to create a voice log* (with the disclosure "to generate a searchable hit list" in the 3rd line from the end of section (57) in the 1st page).

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Chen *et al* to the device/method of Frank, Jr. *et al*'[499] to control the selection of information.

Neither *Frank, Jr. et al*'[499] nor Chen *et al* mention the further limitation of *a dual sound-textual transcript of the spoken words*. With the invention *for providing speaker-specific records of statements of speakers*, Chandler *et al* teach this feature *to create a dual sound-textual transcript of the spoken words* (82_{1-n} & 84_{1-n} in figure 4) as well as the further features of:

- *a) an input device by which the spoken words of the user are converted to an electrical voice signal that represents the sound of the users spoken words and by which the voice signal is input into the Microcomputer* (84_{1-n}→85 in figure 4 - see 61→74 in figure 3),
- *b) a segmentor that divides the voice signal into segments* (85 in figure 4 – see 64→70 in figure 3),
- *c) a time stamper that electronically stamps each segment with the time that the segment was input into the Microcomputer* (85 in figure 4),
- *d) a text converter that converts each segment into a text segment representative of the words spoken by the user in that segment* (72 in figure 3), *and*
- *e) a transfer means adapted to deliver the time stamped voice and text segments to the log memory* (72→74 in figure 3).

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Chandler

et al to the device/method of *Frank, Jr. et al*'499 or Chen *et al* upon realizing that to record a conversation requires recording all speakers.

Frank, Jr. *et al*'499 does not speak to the feature of organizing stored information. Chen *et al* read on the feature *f), to operate the log memory so that the voice segment and the text segment can be compared* (to "generate a searchable hit list" in the 3rd line from the end of section (57) in the 1st page) but does not detail the steps required to sequence output. Chandler *et al* read on the feature *that the voice segments can be recovered in chronological order and can be presented as a recording of the spoken words of the user* (column 3 lines 13-18) *and that the text segments can be recovered in chronological order and presented as a transcript of the spoken words of the user* (column 3 line 21), *and that the segments can be located in the log memory by time stamp* (column 3 lines 23-27).

It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Chandler *et al* to the device/method of *Frank, Jr. et al*'499 or Chen *et al* to provide utility from recall or further information from the exercise of processing voice by manifesting the result as either representation, data or future resource.

7. Regarding claim 23 as understood by the Examiner, the features of a *Microcomputer enclosed in a 5½" enclosure that mounts into a standard personal computer 5½" storage peripheral bay to capture the spoken words of a 1st user and store the sounds and text of the spoken words of the 1st user in a log memory with the*

sounds and spoken words of a 2nd user to create a dual sound-textual transcript of the spoken words of the 1st user or the 2nd user or both the 1st user and the 2nd user and the further features of

a) an input device by which the spoken words of the 1st user are converted to an electrical voice signal that represents the sound of the user's spoken words and by which the voice signal is input into the Microcomputer,

b) a segmentor that divides the voice signal of the 1st user into segments,

c) a time stamper that electronically stamps each segment with the time that the segment was input into the Microcomputer,

d) a text converter that converts each segment into a text segment representative of the words spoken by the 1st user in that segment,

e) a transfer means adapted to deliver the time stamped voice and text segments of the 1st user to the log memory, and

f) an operating system adapted to operate the log memory so that the voice segment and the text segment can be compared, are the same as those comprising claim 22 and the respective bases for those rejections are applied to this claim.

The prior art of Chandler *et al* cited for plural voices also teaches the feature of the claim *so that the voice segments of the 1st user or of the 2nd user or of a combination of the 1st user and the 2nd user, can be recovered in chronological order and can be presented as a recording of the spoken words of the 1st user or the 2nd user or the 1st and 2nd user and the operating system is adapted so that the text segments can be recovered in chronological order and presented as a transcript of the spoken*

words of the 1st user or of the 2nd user or of a combination of the 1st and 2nd user, (column 3 *lines* 13-27) while the contribution of Chen *et al* to the feature of *indexing* read on the feature *that the segments can be located in the log memory by time stamp* enhances the operation of *recorder* (column 3 *lines* 23-28) which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Chen *et al* to the device/method of Chandler *et al* to begin replay of an event immediately after the order or query had been placed.

Frank, Jr. *et al*'499, Chen *et al* & Chandler *et al*

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank, Jr. *et al*'499 in view of Chen *et al* and further in view of Chandler *et al* and further in view of Sharman *et al* (U.S. Patent 6, 100,882 A).

9. Regarding claim 24 as understood by the Examiner, the features of the claim *for creating a transcript of a conversation between a 1st user and a 2nd user* of:

a) a common log memory;

b) a 1st Microcomputer to capture the spoken words of the 1st user and store the sounds and text of the spoken words of the 1st user in a log memory,

i) an input device converting a 1st speech to an electrical voice signal that is input into the Microcomputer,

ii) a segmentor that divides the voice signal into segments,

iii) a time stamper that electronically stamps each segment with the time that the segment was input into the Microcomputer,

iv) a text converter that converts each segment into a text segment representative of the words spoken by the 1st user in that segment,

v) a transfer means adapted to deliver the time stamped voice and text segments to the log memory are the same as those found in claims 22 and 23, and the bases for rejecting those features are applied to this claim, respectively.

10. Neither Frank, Jr. *et al*'499 nor Chen *et al* nor Chandler *et al* address either *multiple processors* or *distributed voice recognition.* With the invention for textual recording of contributions to audio conference using speech recognition, Sharman *et al* read on the feature of *c) a 2nd Microcomputer adapted to capture the spoken words of the 2nd user and store the sounds and text of the spoken words of the 2nd user in the log memory to create a dual sound-textual transcript of the spoken words of the 1st and 2nd users,* (50 in figure 2 & 128 in figure 3 – see column 4 *lines* 35-39). Consequent features of *the 2nd Microcomputer i) – v)* correspond to features *i) – v)* of *the 1st Microcomputer* and the rejections corresponding to those features are applied to these. It would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to apply the method/teachings of Sharman *et al* to the device/method of Frank, Jr. *et al*'499 or Chen *et al* or Chandler *et al* both to avoid competition from two speakers talking simultaneously.

The further features to *operate the log memory so that each voice segment and corresponding text segment can be compared* have been previously addressed in

response to claim 23 with reference to Chen *et al* and that serves as the basis for rejecting these features.

The further features *that the voice segments of the 1st user or of the 2nd user, or of a combination of the 1st and 2nd user can be recovered in chronological order and can be presented as a recording of the spoken words of the 1st user or of the 2nd user or of a combination of the 1st and 2nd user, and the operating system is adapted so that the text segments of the 1st user or of the 2nd users, or of a combination of the 1st and 2nd user can be recovered in chronological order and presented as a transcript of the spoken words of the 1st user or of the 2nd user or of a combination of the 1st and 2nd user* have been previously addressed in response to claim 23 with reference to Chen *et al* and that serves as the basis for rejecting these features.

The further feature that *the operating system is adapted so that the segments can be located in the log memory by time stamp* have been previously addressed in response to claim 23 with reference to Chen *et al* & Chandler *et al*, which serve as the basis for rejecting this feature.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kawaguchi *et al* (U.S. Patent 5,930,752 A) audio interactive system, one embodiment having shared memory and recognizers in each remote terminal.

- Sienel *et al* (European Patent 1168303 A1) control of resources of a distributed speech recognition system.
- Kosaka *et al* (Japan Patent 2001-065383) distributed voice recognition to prevent a decrease in recognition rate and compressibility due to environmental variations.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A. Nolan whose telephone number is (703)305-1368. The examiner can normally be reached on 7AM-5PM, Mon-Tue & Thu-Fri. If

attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached at (703)305-9645.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866)217-9197 (toll-free).

The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306. The fax phone number for Technology Center 2600 is (703)872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", and designate formal communications as "EXPEDITED PROCEDURE". Formal response to this action may be faxed according to the above instructions,

or mailed to:

P.O. Box 1450
Alexandria, VA 22313-1450

or hand-deliver to: Crystal Park 2,
2121 Crystal Drive, Arlington, VA,
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office at telephone number (703)306-03776-0377.

Daniel A. Nolan

Examiner
Art Unit 265454

DAN/d
November 1, 2004

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER